

ONTOLOGIE, LOGIQUE, RHÉTORIQUE

INTER-CATEGORIAL RELATIONS
IN HEGEL'S *SCIENCE OF LOGIC*

In memory
of the Romanian Philosopher
Constantin Noica
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Abstract. The paper presents an interpretation of Hegelian objective logic from the point of view of inter-categorical relationships, that are discussed upon within this first part of speculative logic. The author proves that the objective Logic, taken as independent from its continuation, the subjective one, is a categorial structure (but not a conceptual one) where Being and Essence are complementarily related. The categories of objective logic, if related to one another, make up structures of categorial structures (categorial matrixes) which the processes of subjective Logic develop further on as Concept, Judgment, and Syllogism.

Keywords: Hegel, *Science of logic*, quality, quantity, measure.

For getting the right grasp of its meaning, the expression *inter-categorical relations* has to undergo several clarifications which prove themselves essential for the correct understanding of Hegel's *Science of Logic* and for the contemporary relevance of his philosophy.

To this aim, first, we have to clarify what kinds of entities are involved in the relations between categories in Hegel's *Science of Logic* and how these relations could appear.

Secondly, we have to be able to identify the distinctive trace of these inter-categorical relations and to what extent they differ from other types of relations established within the Hegelian logic framework, or outside, in the much broader context of the Hegelian philosophy.

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Despite appearances, as Hegel unfolds his logic, the notion of relation (in German: *Beziehung*, or *Verhältnis*) does not remain rigid (designator), but it undergoes constant changes, depending on what kinds of entities fall into relation. This is a much less frequent approach for the contemporary logic, where the notion of relation is *predetermined*, and consequently, it resolves which entities are to be attached.

Hegel's categories are part of what is called *Objective Logic* and this concept stands for (excepting some details) everything that – from Aristotle to Kant –, has made the subject of Metaphysics. But all this time, Metaphysics underwent a tremendous transformation regarding its specific methods and even its own very character and meaning.

This is the reason why all its constitutive elements have to be regarded as being in evolution too, according to the time period. The two millennia of this continuous renewal are mirrored in Hegel's *Science of Logic* by grouping the component parts of Metaphysics in two complementary lists: *Doctrine of the Being* and *Doctrine of the Essence*.

From a historical perspective, the list of Being matches (again, ignoring some details) the ancient and medieval views on categories.

The other list, Essence, corresponds to the categories shaped by the *modern* Metaphysics (of course, for Hegel, modernity had ended during his lifetime and it would be just meaningless to expand his vision beyond that period of time). But the categories of both lists should not be rigidly connected to the historical periods in which they prevailed because they were not the direct *creations* or the direct consequences of the historical evolution; they were only *developed* in a historical framework.

History does not create the thought, but it is the perfect playground for the thought to materialize, that is to organize and to solve certain problems using the products of thinking as tools, which were improved and made effective with use.

In terms of the history of Metaphysics, Being and Essence appear alongside with their proper categorial components as the fundamental issues for every great epoch in the development of the Spirit. To see an example, Quality (taken from the Being list) was discussed mostly by the ancient and medieval philosophies, whereas Phenomenon (found in the Essence list) was a particular subject proper to modernity.

While from a pure logical perspective these categories are considered only as circumstances, for a historian of metaphysics they are the *symptoms* correlated with the changes occurring in thought. But in order to explain the changing processes in themselves, the thought must turn to something else than a merely historical investigation. Just because we are used to think the Phenomenon as a theme or a subject adequate to modern thinkers, that does not mean that, before modernity, the thought had no concern with it, but it simply was not understood as such.

The Categories of Being and their correlates from the group of Essence, as we can find them in *Science of Logic*, are juxtaposed in the table below:

Table A

Doctrine of Being	Essence
Quality	Essence as Reflection in itself
Quantity	Phenomenon
Measure	Reality

The correlation between both lists of categories (that of the Essence group and the one of the Being) is not restricted to those items found under each title, but it also works for the rest of the categorial components. Thus, for Quality and its complement, Essence as Reflection in itself, we have the following correspondence:

Table A.1

Quality	Essence as Reflection in itself
Being	Apparentness
Determinate Being	Essentialities or Determinations of Reflection
Being-for-itself	Ground

For Quantity and Phenomenon:

Table A.2

Quantity	Phenomenon
Quantity	Existence
Quantum	Phenomenon
Quantitative Relation	Essential Relation

And for Measure and Reality:

Table A.3

Measure	Reality
Specific Quantity	Absolute
Real Measure	Reality
Transformation into Essence	Absolute Relation

Usually, the categories are represented as a continuous list which begins with Quality and ends with Reality, only to proceed further to Subjective Logic and the Philosophy of Nature, etc. As a consequence, the purposes and the ultimate goals of the speculative logic (and those of the Hegelian philosophy, as a matter of fact), become obscure and the long awaited achievements could be confusing.

Only after a full deployment of this complex categorial structure, we can resume the questions above, because it takes a good look into and the right arrangement of categories of the Objective Logic for the authentic meaning to fully emerge.

When asking what *kinds* of entities the relations establish between categories in *Science of Logic*, the answer is that we are dealing with determinations of the

thought on the object or, in other words, on what is thought as being *different* for the thinking itself. All these determinations are products of thought although, at the moment of Objective Logic, the thinking does not determine them as its own, but as the determinations of the object itself. Moreover, the object which is independent from thinking does determine the thought and becomes knowable for thinking only through the categories of the Objective Logic.

Thus, for thinking, the relations between categories of the Objective Logic are relations established within the object itself. In fact, this is the answer to the question: *where* do the inter-categorical relations of the Objective Logic appear in? Obviously, the ‘where’ question does not make any sense, if by posing it, we mean an exact location. The object is not localized, since the possibility of any localization in itself is object-dependent¹.

Categories of the Objective Logic are external to the thinking process, but they are nothing more than thought. Thinking is the ability – or the faculty, the capability – of the Spirit to produce and then to work with categories. The sensitivity, the imagination, the will, and all the other distinct faculties of thought outgrow intuitions, insights, images, aims or intentions, but not categories.

Reaching out the categories through sensitivity, imagination or will has proved, at least improper, causing, after the completion of the Hegelian system, the rise of a number of pseudo-philosophical hybrid disciplines.

When it comes to the scientific knowledge, the thinking is applied to the object, and the result consists in a large number of combinations between categories and the various products of sensibility, imagination or will, but this is no longer about pursuing the study of categories, but a chase for the results of their application. Along with the multitude of intuitions, images, intentions and purposes, the categories form the concepts used by sciences to establish the nature of the concrete object, with all its inherent uniformities and discontinuities. The fundamental concepts of science are different from the categories of the Objective Logic, since they are not produced by the same source, namely the pure thinking.

The Natural Sciences or the Sciences of the Spirit, from Physics to Philology – no matter which –, do not study the categories and their relations; this task, Hegel argues, is a task only for the Science of Logic.

¹ In Aristotle, the interrogative pronoun *where* is actually a category which, seen from a Hegelian perspective, pertains to the sphere of Being. Later in modernity, spatiality and temporality are attached to the Phenomenon as part of the categorical sphere of Essence. And the Essence sphere is not reducible to that of Being. This is the reason why, when it comes to the most representative thinker for the categoriality of Essence – Kant –, time and space are no longer categories, but pure a priori intuitions. Vis-à-vis the phenomenon, which is a manifestation in space and time, the a priori intuitions still operate as the Aristotelian categories do, but with a difference: they are not thinking products. The speculative Hegelian philosophy identifies the problem of space and time as a part of the Philosophy of nature, more precisely, as a part of Mechanics. Space and time are determinations of nature and, in consequence, they no longer belong to the study object of Speculative Logic (which incorporates the old Metaphysics) – *Encyclopedia of the Philosophical Sciences in Basic Outline*, Part II, Science of Nature §§ 254–261. This extremely important transformation of the reception of space and time in philosophy was caused by the development of natural sciences.

Objective Logic is not dismountable from the Subjective Logic. Similarly to the way in which Essence and Being are complementary within the Objective Logic, in its turn, the whole Objective Logic is complementary to the Subjective one. This second complementarity bears the trademark of the ultimate separation of the Objective Logic from the traditional Metaphysics.

Traditional Metaphysics, seen as an a priori knowledge, naïvely embarked on the quest for the pure products of thought as objects already formed, but questioning nothing about the essential problem of their origin. On the other hand, the critics of Metaphysics insistently ask for an answer regarding the origin of these products, without launching in a systematic study on the matter, though. So, the critique of Metaphysics, initiated by Kant, is an incomplete enterprise, just as the traditional metaphysics was an edifice built-up with unknown materials.

If we accept the interpretation according to which the categories of the Objective Logic are not independent of each other, but they constitute the Essence-Being structures, we have to consider the possibility of reducing these structures to a common schema. The resulted schematism would not be subsequent to the Objective Logic, but to the other side of *Science of Logic*, the Subjective Logic.

The Subjective Logic unravels three kinds of relational schemata, encompassing the categories of the Objective Logic, each corresponding to one of the three forms of classical-traditional Logic: Concept, Judgment and Syllogism.

If, in a strict logical sense, i.e. de jure, the categories appear first within the Objective Logic, in terms of knowledge, i.e. de facto, they become accessible to us via the formations of the Subjective Logic. The Speculative Logic cannot be assimilated to a formal type, which means that, neither the categories of the Objective Logic nor Concept, Judgment and Syllogism could be studied independently, as in the case of classical-traditional treaties of logic. The reason behind the traditional undertaking of a special study dedicated solely to Concept, Judgment and Syllogism was the assumption that the depiction of an exact set of operating rules could provide safe procedures for demonstrating the truth of all the statements meant to be incorporated in the scientific endeavour. The gathering corpus of all these demonstrative procedures is not actually part of the science itself, but it could guarantee the truth of any scientific statement.

Still, from the point of view of the Speculative Logic, these procedures need further justifications before ruling over the domain of scientific knowledge. Although absent for the two millennia of philosophical evolution, after Kant's Critique, this requirement can no longer be overlooked.

As a principle, the speculative justifications are of a different sort from those labelled as logical-formal demonstrations. According to Aristotle's *Posterior Analytics* (I, 2, 71b), the latter should meet some formal conditions regarding the premises such as: 1) to be true, 2) to be first, 3) to be unmediated, 4) to be known better than the conclusion, 5) to grant the conclusion². Therefore, the formal demonstrations

² A. Dumitriu, *Teoria logicii [The Theory of Logic]*, Editura Academiei R.S.R., București, 1973, p. 326–327.

already involve a lot of notions from which the speculative logic made its goal. Here are some examples found in *Posterior Analytics*: 1) the premises and the conclusion are *judgments*, 2) the cause is a *determination of thought*, 3) the same also applies to other concepts (prime = *πρώτων*, or unmediated = *ἀμέσων* etc.).

The Speculative Logic cannot begin with the conventional definitions of these notions (which, in the case of formal logic is allowed), since one of its main goals is to show and explain their presence in thought. All the notions formal logic makes use of, as well as all the concepts of science in general, are nothing but the results of the thinking process. The task of a speculative demonstration is exactly to identify and highlight such results. The identification in question does not lead to a historical enquiry for the exact birth date of a concept on the science stage. As a matter of fact, it is the other way around; the historical approach is stimulated by the fact that a notion is identified as a result via a speculative undertaking.

In the Speculative Logic, Concept, Judgment and Syllogism appear as a development of thinking, but not a unilinear one. All the philosophical systems or doctrines, all the worldviews occurred until Hegel's time played their parts in this development. In his *Lessons on History of Philosophy*, Hegel managed to show the development of philosophical thought by pointing out the succession of the different philosophical systems. They appear as a development precisely because they take and push certain concepts, judgments or syllogisms to their ultimate consequences and build further on, guided by the blueprints provided by these forms of thought. Consciousness, Self-consciousness and Reason, which are the main pillars for any of the worldviews, doctrines or philosophical systems that have ever existed in history, are also large parts of this development. The notion of "World", itself, with all its specific features, is a by-product of the development of Concept, Judgment and Syllogism.

Concept, Judgment, Syllogism, they all belong to both logical spheres; they are not only *subjective-logical* processes, but also *objective-logical* structures. As long as we consider the categories as structures belonging to *Objective Logic* solely, we cannot use the terminology proper to the *logical-subjective* sphere anymore, since „concept”, „judgment” or „syllogism” have no meaning here. We place ourselves at the ontic level where the ego or the consciousness, the knowledge or the science are absent from such kind of relation between categories³. In Hegel's own words, at this level, the Concept „ist er nur Begriff an sich, der Realität oder des Seyns⁴” [is just the Concept-in-itself, of Reality or of Being qua Being], while the corresponding logic, that which examines „die Natur des Ens überhaupt⁵” [the

³ Naturally, this absence is not a “reduction” or a “bracketing”, because the “ego”, the “consciousness”, etc. are not yet constituted and for this moment, any discourse about them would be an anachronistic demarche. Ego, consciousness, science, they all are posterior to the categorical reference discussed here.

⁴ G. W. F. Hegel, *Wissenschaft der Logik*, Erster Band, *Die objektive Logik*, Felix Meiner Verlag, Hamburg, 1999, p. 45.

⁵ *Ibidem*, p. 48.

nature of *ens*, of what generally is] is the ontology. However, just because we bracket the knowing consciousness (a posteriori), categories are not becoming material elements; they remain the purest products of thinking. Our contact with matter is possible only through the senses, and senses cannot be stimulated by categories. The fundamental error of materialism (which proposed itself as an alternative to the construction of the Hegelian theory, mainly relying on research results of natural sciences) consists in taking two theoretically fraudulent steps: (1) an unjustified conversion (via postulates) of the pure products of thought into a source affecting the senses, (2) the use of these modified products as proof of the a priori character of the affecting sources before the thought.

Objective Logic is the logic of the Concept as Being⁶. Although they share the same name, the categories seen in the light of Concept as Being, namely, in an ontological manner, do not coincide with the categories taken from the Concept as Concept perspective, which includes their consideration as Judgment and Syllogism.

In fact, considered only as Concept, the Objective Logic categories are reduced to the status of simple determinations of consciousness. This operation proves equally uncritical as does its opposite; the one in which the categories are reduced to essential determinations of thought, albeit, maintaining their representation's dependency.

To prevent any further confusion, whenever we refer to the Objective Logic categories (of Concept as Being) we use uppercase letter. Thus, QUALITY, pertaining to the Objective Logic, graphically differs from the Quality engaged in the processes involving Concept, Judgment or Syllogism.

I. THE QUALITATIVE RELATION

The Qualitative relation is displayed in the *Table A.1*. All the six components forming the structure of categories in this table and corresponding to QUALITY and ESSENCE (as Reflection in itself) are also categories. The same goes for QUANTITY and PHENOMENON table components, as well as for MEASURE and REALITY.

Unlike Quality, which successively takes the determinations of universality, particularity and individuality in Concept, Judgment and Syllogism, QUALITY cannot be determined as universality, particularity, or as individuality. On the contrary, to determine it as such, it would mean to cancel it. The determinations of QUALITY are *categorical*, as opposed to those of Quality which are *conceptual* or determined concepts, to use the exact Hegelian terminology. The same applies to ESSENCE and Essence – the transcendental correlatives of QUALITY and Quality. QUALITY can be taken into account apart from its relations with ESSENCE (and likewise for the rest of the categories of the Doctrine of Being) but ESSENCE considered without its proper relation with BEING makes no sense.

⁶ *Ibidem*, p. 45.

Distinct from its relation, QUALITY has three components: BEING, DETERMINED BEING and BEING-FOR-ITSELF.

The table below show their determinations:

Table A.1.1

BEING	DETERMINED BEING	BEING-FOR-ITSELF
Being	Determined Being as such	Being-for-itself as such
Nothingness	Finitude	One and Multiple
Becoming	Infinity	Repulsion and Attraction

ESSENCE (as Reflection in itself) has the following components: APPEARANCE, ESSENTIALITIES, and GROUND. The ESSENCE determinations are listed in the table below:

Table A.1.2

APPEARANCE	ESSENTIALITIES	GROUND
Essential and Unessential	Identity	Absolute Ground
Appearance	Difference	Determined Ground
Reflection	Contradiction	Complete Ground

QUALITY-ESSENCE relation cannot have a bi-univocal structure; otherwise, between BEING and APPEARANCE, DETERMINED BEING and ESSENTIALITIES, BEING-FOR-ITSELF and GROUND there would be no difference and it would make no sense to have two sets of names for one and the same category/determination. ESSENCE clearly manifests a difference within BEING, a Becoming into BEING, precisely because it is ESSENCE and not just BEING. The next table reunites the categorial determinations of QUALITY and those of ESSENCE (the italics are used for the determinations of ESSENCE). Qualitatively, the determinations of BEING are synonymous with those of ESSENCE, while, essentially, the determinations of ESSENCE are synonymous with those of BEING.

Table A.1.3

BEING <i>APPEARANCE</i>	DETERMINED BEING <i>ESSENTIALITIES</i>	BEING-FOR-ITSELF <i>GROUND</i>
Being <i>Essential and Unessential</i>	Determined Being as such <i>Identity</i>	Being-for-itself as such <i>Absolute Ground</i>
Nothingness <i>Appearance</i>	Finitude <i>Difference</i>	One and Multiple <i>Determined Ground</i>
Becoming <i>Reflection</i>	Infinity <i>Contradiction</i>	Repulsion and Attraction <i>Complete Ground</i>

II. THE QUANTITATIVE RELATION

The Quantitative relation is highlighted in the *Table A.2.*; QUANTITY status displays analogous features to those of QUALITY. At the level of ESSENCE, the

QUANTITY correlate is PHENOMENON. The table below presents the determinations of the QUANTITY category as they appear in *Science of Logic*.

Table A.2.1

QUANTITY	QUANTUM	QUANTITATIVE RELATION
Pure Quantity	Number	Direct Relation
Continuous and Discrete Quantity	Extensive and Intensive Quantum	Inverse Relation
Delimitation of Quantity	Quantitative Infinitude	Potential Relation

In the case of PHENOMENON, the categorical determinations fall under EXISTENCE, PHENOMENON, and ESSENTIAL RELATION (see *infra*):

Table A.2.2

EXISTENCE	PHENOMENON	ESSENTIAL RELATION
Thing and its Properties	Law of Phenomenon	Relation between Whole and its Parts
Thing made of Matters	World of Phenomenon and World-in-itself	Relation between Force and its Exteriorization
Dissolution of Thing	Dissolution of Phenomenon	Relation between Internal and External

Exactly as in the case of Qualitative Relation, the determination of QUANTITY and PHENOMENON, its correlate, does not occur in terms of universality, particularity and individuality. Otherwise, this would mean to push the problem towards a different level of analysis. From the perspective of Concept as Concept, QUANTITY and PHENOMENON have their own trajectory-paths.

Table A.2.3

QUANTITY <i>EXISTENCE</i>	QUANTUM <i>PHENOMENON</i>	QUANTITATIVE RELATION <i>ESSENTIAL RELATION</i>
Pure Quantity <i>Thing and its Properties</i>	Number <i>Law of Phenomenon</i>	Direct Relation <i>Relation between Whole and its Parts</i>
Continuous and discrete Quantity <i>Thing made of Matters</i>	Extensive and Intensive Quantum <i>World of Phenomenon and World-in-itself</i>	Inverse Relation <i>Relation between Force and its Exteriorization</i>
Delimitation of Quantity <i>Dissolution of Thing</i>	Quantitative infinitude <i>Dissolution of Phenomenon</i>	Potential Relation <i>Relation between Internal and External</i>

III. THE DIMENSIONAL RELATION

Dimensional Relation is the relation between the categories of MEASURE (at the BEING level) and REALITY (at the ESSENCE level). The following table shows the categorial determinations of MEASURE, as they appear in the third Section of the Objective Logic in *Science of Logic*.

It is not without interest to point out that MEASURE, as category, differs from a simple measurement, or from determining things or facts by the conventional or 'natural' standards. The general use of any of the measuring tools or instruments could not be conceived without the MEASURE category which stands for the all-encompassing possibility to determine, to relate and to measure things, facts, etc. by applying standards. The term „measure”, which translates the German „das Maass”, could be replaced in this case with „dimension” or, rather, with „dimensionality”, both expressing more accurately the meaning of the MEASURE category by not referring to a specific size or any size in general, but to the pure possibility of having a size (or dimension) at all.

Table A.3.1

SPECIFIC QUANTITY	REAL MEASURE	BECOMING OF ESSENCE
Specific Quantum	Relation of independent Measures	Absolute Indifference
Measure which specifies	Nodal series of measurement Relations	Indifference as reverse Relation of its factors
Being-for-itself in Measure	Immeasurable	Becoming into Essence

The table below (A.3.2) presents the juxtaposition of the categorial determinations of REALITY, namely the correspondent of MEASURE at the level of ESSENCE (originated in the field of BEING). From the perspective of ESSENCE, the category of ABSOLUTE is synonymous with the category of SPECIFIC QUANTITY (at the level of BEING), but not vice versa, except for the field of BEING.

Table A.3.2

ABSOLUTE	REALITY	ABSOLUTE RELATION
Exposition of Absolute	Accidental or formal Reality, Possibility and Necessity	Relation of Substantiality
Absolute Attribute	Relative Necessity or real Reality, Possibility and Necessity	Causal Relation
Modus of Absolute	Absolute Necessity	Reciprocal action

The table below reunites the determinations of category of MEASURE (in the field of BEING) and of REALITY (in the field of ESSENCE).

Table A.3.3

SPECIFIC QUANTITY <i>ABSOLUTE</i>	REAL MEASURE <i>REALITY</i>	BECOMING OF ESSENCE <i>ABSOLUTE RELATION</i>
Specific Quantum <i>Exposition of Absolute</i>	Relation of independent Measures <i>Accidental or formal Reality, Possibility and Necessity</i>	Absolute Indifference <i>Relation of Substantiality</i>
Measure that specifies <i>Absolute Attribute</i>	Nodal series of Measurement relations <i>Relative Necessity or real Reality, Possibility and Necessity</i>	Indifference as reverse Relation of its factors <i>Causal relation</i>
Being-for-itself in Measure <i>Modus of Absolute</i>	Immeasurable <i>Absolute Necessity</i>	Becoming into Essence <i>Reciprocal action</i>

IV. STRUCTURE OF STRUCTURES, OR THE MATRIX OF THE CATEGORIES

The categorial system depicted above makes room for and accommodates both the Aristotelian and the Kantian categorial lists, having at the same time more weight than the two taken solely or together. On the one hand, the Aristotelian inventory of the ten categories was an account dedicated to things in general, a listing of the categories *of things*; it was the result of the way the thought organizes or constructs the things. On the other hand, the Kantian list was an a priori structure of thinking itself, an outcome of the research into the thinking ability to produce knowledge. The Hegelian system managed to be both, and yet, this important novelty has not been receipted as it should have been by his exegetes. One of the reasons for such shortcoming might be Hegel himself. He excluded any kind of schematism from his account, fearing the oversimplifications of the structures and processes he was referring to⁷. Moreover, he had an aversion towards calculus, on which he thought to be unapplicable to logics, strongly rejecting the attempts during his life-time to develop it. Or it might be his fear that the study of thinking could end-up suffering a contamination with all sorts of elements of representation – an almost unavoidable phenomenon, if we take into consideration the antecedents of Metaphysics and the fact that Metaphysics is nothing but the rightful predecessor of his Objective Logic. But, by rigorously opposing these trends, he was led onto an undesired path, into another direction than those he wanted to avoid. The already very complexe categorial relations were not differentiated clear enough. Due to this fact, their reconciliation was difficult to grasp.

⁷ In fact, Hegel's concerns have proved to be justified; all the well-nuanced transformations used in his Logic, Philosophy of Nature or Philosophy of Spirit were gradually replaced with the universalistic thesis-antithesis-synthesis mechanism.

Still, given the complexity of the relations within the Objective Logic, we believe that a graphic representation of their structure can no longer be postponed or avoided. Strictly speaking, we have to deal with a structure of structures, which is nothing else but a categorial matrix⁸.

This notion of “categorial matrix” is justified on the base of the fundamental relation between BEING and ESSENCE, highlighted in the above sections of this study and expressed by Hegel’s own words: “The Truth of Being is Essence” (or: “Essence is the Truth of Being”).

As it can be seen below (*Table B*), the matrix integrates:

- (a) Categories like One, the undifferentiated (complete) Totality (labelled A). For the thinking, this is the Object, or the Parmenidean One-Totality, or “to think” and “to be” taken together.
- (b) Differentiated categorial structures of BEING and of ESSENCE (labelled A.1, A.2, A.3), and their proper determinations: QUALITY, QUANTITY, MESURE, ESSENCE, PHENOMENON, REALITY, all of them as isolated entities, distinct from each other and from the undifferentiated Totality.
- (c) Structures of the categorial determinations within BEING, respectively within ESSENCE (labelled above A.1.1., A.1.2; A.2.1, A.2.2, A.3.1, A.3.2). The categorial determinations cease to be categories and they become the differentiation criteria.
- (d) Reunited structures of the categorial determinations of BEING and of ESSENCE (labelled *A.1.3*, *A.2.3*, and *A.3.3*). Putting together the categorial determinations of QUALITY and ESSENCE, of QUANTITY and PHENOMENON, of MESURE and REALITY is not an attribution, nor a predicament (both belonging within the Subjective Logic) but just the expression of the fundamental unity of a whole categorial structure for which BEING and ESSENCE are one and the same.

Table B

A		
<div><div>A.1</div><div>A.1.1A.1.2</div><div>A.1.3</div></div>		<div><div>A.2</div><div>A.2.1A.2.2</div><div>A.2.3</div></div>
<div><div>A.3</div><div>A.3.1A.3.2</div><div>A.3.3</div></div>		

⁸ Usually, the term *matrix* is referring to a table with rows (n) and columns (m), wherein $n = m$ or $n \neq m$, containing elements ordered after the first row and the first column, spanning vertically and/or horizontally (see Gh. Enescu, *Dicţionar de logică* [*Dictionary of Logic*], Editura Ştiinţifică şi Enciclopedică, Bucureşti, 1985, art. Matrice, p. 212–213). The *categorial matrix* is a more complex structure than a square matrix ($n = m$) or a rectangular one ($n \neq m$), but it cannot be divided into a series of square or rectangular matrices, because its constitutive elements are also matrices.

The disposal of the Objective Logic categories is indeed a triadic model, but reducing the relations amongst the categories to a thesis – antithesis – synthesis type scheme is an illegitimate procedure, a fact which is provable by starting from each of the four modes of accounting for the above mentioned categories. Thus:

- As a Totality it is impossible to specify any thesis, antithesis, or synthesis, even if what we understand through these terms is not refereeing to utterances, but the actual states of affair. BEING and ESSENCE are indistinct not just as such, but there can be no categories within either.

- The differentiated categorial structures cannot pass into each other because they are not in opposition, they rather complement each other. They appear more as an inseparable combination on the level of BEING or that of ESSENCE. For example, REAL MEASURE and REALITY are not standing in opposition, they are not negating each other, but REALITY is the essential part of REAL MEASURE. Without the latter, the first ceases to be what it is; if REAL MEASURE would become REALITY, REALITY itself would turn in something else.

- At the level of categorial determinations, relations are clearly influenced by the scientific development, and without a phenomenological analysis regarding such development of the scientific knowledge, there can be not much of a progress in turning the opacity of this kind of relations into something more transparent. To give an example, in the case of Dimensional Relation, Indifference as a reverse relation of its factors (as a categorial determination of BECOMING OF ESSENCE) and Causal Relation (as a categorial determination of ABSOLUTE) cannot be understood and interpreted apart from their significations within the scientific framework.

Between the three structures (QUALITY, QUANTITY, and MEASURE, together with their complements at the level of ESSENCE) of the categorial matrix (*table B*) the *intra*-categorical relations A.1.1 – A.1.2; A.2.1 – A.2.2 and A.3.1 – A.3.2 are distinct, while the *inter*-categorical relations are: A.1.3 – A.2.3 – A.3.3.

V. THE CATEGORIAL MATRIX AND THE LOGICAL-SPECULATIVE PROCESSES

If we let aside the Subjective Logic, the outlined above structures within the Objective Logic are nothing more than simple and arbitrary juxtapositions of names, echoing back to the traditional metaphysical themes as being, quality, quantity, measure, essence, existence, phenomenon, etc. No matter how impressive, any of the philosophical attempts built on these 'names' prove to be an edifice resting on air. Seen from a historical perspective, the categories of the Objective Logic have been developed in the succession of the different philosophical systems. But each system was erected starting just from one or another category; the systems built on the complete lists of categories are exceptional events in the History of philosophy.

But from a speculative point of view, categories of the Objective Logic are disposed within the Subjective Logic in three successive moments: Concept,

Judgment, and Syllogism. As categorial structures of subjectivity, Concept, Judgment, and Syllogism achieve – via a categorial network of the Objective Logic – *the knowledge* of these categories as a system. The categories of the Objective Logic can be known only in relation to each other, because they pertain to the thinking, whose elements are also in touch with each other. Within Concept, categories of the Objective Logic are related through mental acts as follows: to discriminate a particular case – *particularisation*, to extract an individual case – *individualisation*, to elevate a case up to a universal – *universalisation*, or to count all the cases up to a totality – *totalisation*. Within Judgment, the categorial relations are enabled by individualisation, universalisation, particularisation, and totalisation. And finally, within Syllogism, categories are related through a number of ten syntheses (to each Aristotelian syllogistic figure it corresponds three syntheses, plus one corresponding to the fourth figure)⁹. In order to get a fair picture of the categorial relations, we have to face a very long and intricate way, impossible to shorten.

But, at the other end of this succession of relations lays down the Objectivity itself, namely, the categorial structure of the *World* which, in its turn, has three moments: Mechanism – world thought in terms of physical processes, Chemistry – world understood as a sum of chemical reactions, and Teleology – world conceived in terms of biological and/or spiritual processes. The main research fields, proper to modern science, are exactly these three moments of the speculative process. This is the place where all the categorial determinations undergo a continuous enrichment, allowing a permanent reconfiguration of the relations between categories. This is the reason why the categorial determinations are not part of the Objective Logic list of categories, but they are related to Objectivity. Moreover, after reaching Objectivity, thinking does not end its journey towards the absolute knowledge of itself; it turns back to Objective Logic into the form of Idea. By maintaining ourselves on the narrow path of the Objective Logic, apart from the logical-speculative processes, it becomes clear that the categorial relations cannot be Concept, Judgment or Syllogism. The essential feature displayed by each of the three categories of the Objective Logic emerges as a *prima facie Truth* (BEING), but this is not an act of attribution, of predicate or of operation, in general. Besides their analogous triadic structure, the common feature for the qualitative, quantitative and dimensional relations is the fact that these three look like the constitutive elements of a programming code. The logical-speculative processes (which, again, are part of the Subjective Logic), with the help of the categorial relations, *encode* all the relating possibilities of thinking. Nevertheless, the elements of the Objective Logic are not organized after the common model of a dictionary. The contained elements of a common dictionary

⁹ These successive relations were already examined and described extensively in my previous works and there is no need to return to this subject here. For further details see *Logică naturală și știința logicii în filosofia lui Hegel* [The Natural Logic and the Science of Logic in Hegel's Philosophy] (2009), chap. III and IV, and *Logica speculativă hegeliană – schematism și aplicații sistematice* [The Speculative Hegelian Logic – Schematism and systematic applications] (2014), Part two.

constitute a substrate on which the syntax rules are applied to form grammatically correct statements or utterances. The definitions of the terms found in a dictionary are distinct from the terms themselves. For that matter, definitions are not actually part of a dictionary which, strictly speaking, is nothing more than a list of terms along with their morphological status such as: noun, verb or adjective, etc. (for vernaculars); the definitions are just tools meant for users to become familiar with the terms and use them correctly. A common dictionary can be expanded by adding up new terms.

On one hand, the list of the Hegelian Objective Logic categories is more than a classic dictionary, but on the other hand, it is less. In the first sense the categorial list contains, not one, but two dictionaries, one of them explaining the other. So, we have a double list of terms; the set of rules for the correct formation of the statements (Concept, Judgment and Syllogism), only that, these forming rules molds after the dictionary's pattern. Any syntactic outcome produced by operating this dictionary is worth much more than a simple statement. This result necessarily includes a meaning, which in case of the usual syntactic rules is just a possibility. Any "speculative statement" is a meaning bearer because its terms are a priori explicit. For Hegel, the thinking cannot ever be just an empty scheme.

The second sense retains the completeness of the categorial list. Unlike a common dictionary, the double dictionary of the Objective Logic cannot be edited or extended by adding up new terms. Still it permits new interpretations or a re-signification of the containing terms as a result of its use within the Subjective Logic. The new meanings of the terms increase the content of the categorial dictionary, but without extending the list of the terms. Still, the comparison between a dictionary, even a double one, and the Hegelian categories of the Objective Logic cannot be carried too far. The Hegelian categories are not actually terms. According to their definition, the necessary features of the terms should be the sphere and the content, respectively the intension and the extension; conversely, QUALITY-ESSENCE AS REFLECTION IN ITSELF, QUANTITY-PHENOMENON and MEASURE-REALITY do not possess the character of BEING or of ESSENCE, except from the logical-speculative perspective. If Quality determines itself as Essence reflected in itself, Quantity as Phenomenon and Measure as Reality, we no longer work with the Concept as Being, but we already are in the context of the Concept as Concept. Quality, Essence as reflection in itself, Quantity, Phenomenon, Measure and Reality, they all are terms within the Subjective Logic processes, determining each other as properties, subject or predicate, major and minor terms and *medius terminus*. In this context, Quality is not identical with Essence as reflection in itself because the determination of the latter is not the negation of Quality, that which is not Quality; Phenomenon and Measure *stand for* what, Quality, respectively, Reality *are not*. The subjectivity triggers itself as an intra-categorial delimitation or in other words, as a dissociative process. Consequently, from a logical-subjective perspective, the Essence affirmation means the negation

of Being. Forasmuch as both affirmation and negation have no meaning in the logical-objective framework, any categorial alteration is inadmissible. This status is reflected in the *retention* and *preservation* form of Hegel's notion of *Aufhebung* (annulment, negation).

Aufhebung is more than a language game or a psychological phenomenon (a form of persistence as memory). It is the only logical-objective operator. In its absence, the whole categorial structure of the Objective Logic would share the same immobility with the Parmenidean Being. The German word *aufgehoben* (to cancel) does capture the unity of the contraries, but not in the sense that one of the contrary excludes the other, reducing it to nothingness. The exact sense is that one contrary is *identical* with the other as a moment, but not generally interchangeable.

This sort of unity is illustrated by Hegel using the physical notions of "weight" and "distance" and their similar effects on a lever; and yet the weight and the distance are not the same thing and they are not "indifferent" to the contextual relations. Still, this illustration of the way in which *aufheben* works is just an application of the logical-objective operator to a certain situation.